SAE Aerospace
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AEROSPACE MATERIAL SPECIFICATION

AMS-QQ-A-200/1A

Issued JUL 1997
Cancelled JUN 2007

Superseded by ASTM B 221 and ASTM B 241

Aluminum Alloy 3003, Bar, Rod, Shapes, Tube, and Wire, Extruded

A93003

RATIONALE

AMS-QQ-A-200/1 has been cancelled and superseded because equivalent technical requirements are provided by ASTM B 241 and ASTM B 221 as designated below.

CANCELLATION NOTICE

This specification has been declared “CANCELLED” by the Aerospace Materials Division, SAE, as of June, 2007, and has been superseded by the specifications listed below. The requirements of the latest issue of the specifications listed below shall be fulfilled whenever reference is made to the cancelled AMS-QQ-A-200/1. By this action, this document will remain listed in the Numerical Section of the Index of Aerospace Material Specifications, noting that it has been superseded by the specifications listed below.

Cancelled specifications are available from SAE.

AMS-QQ-A-200/1	Superseding Specification
Type 1 Tubing	ASTM B 241, Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube
Type II Tubing and all other product	ASTM B 221, Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

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NOTICE

This document has been taken directly from Federal Specification QQ-A-200/1D and contains only minor editorial and format changes required to bring it into conformance with the publishing requirements of SAE technical standards.

The original Federal Specification was adopted as an SAE standard under the provisions of the SAE Technical Standards Board (TSB) Rules and Regulations (TSB 001) pertaining to accelerated adoption of government specifications and standards. TSB rules provide for (a) the publication of portions of unrevised government specifications and standards without consensus voting at the SAE Committee level, (b) the use of the existing government specification or standard format, and (c) the exclusion of any qualified product list (QPL) sections.

The complete requirements for procuring aluminum alloy 3003 bar, rod, shapes, tube, and wire extruded described herein shall consist of this document and the latest issue of AMS-QQ-A-200.

1. SCOPE AND CLASSIFICATION:

1.1 Scope:

This specification covers the specific requirements for aluminum alloy 3003 bar, rod, shapes, tube, and wire produced by extrusion.

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1.2 Classification:

1.2.1 Tempers: Bar, rod, shapes, tube, and wire are classified in the following tempers as specified (See 6.2): O, H112, and F. Definitions of tempers are specified in AMS-QQ-A-200.

1.2.2 Tubing: Tubing is additionally classified as follows:

Type	Description
I	- Tubing extruded from hollow billets using die and mandrel (See AMS-QQ-A-200).
II	- Tubing extruded from solid billets using a porthole or spider die or similar tooling (See AMS-QQ-A-200).

1.2.2.1 See AMS-QQ-A-200 for applications of each type.

2. APPLICABLE DOCUMENTS:

See AMS-QQ-A-200.

3. REQUIREMENTS:

3.1 Chemical Composition:

The chemical composition shall conform to the requirements specified in Table I.

TABLE I. Chemical Composition 1/

Element	Percent	
	Minimum	Maximum
Manganese	1.0	1.5
Copper	0.05	0.20
Iron	--	0.7
Silicon	--	0.6
Zinc	--	0.10
Other Elements, each	--	0.05
Other Elements, total 2/	--	0.15
Aluminum	Remainder	

1/ Analysis shall routinely be made only for the elements specifically mentioned in Table I. If, however, the presence of other elements is indicated or suspected in amounts greater than the specified limits, further analysis shall be made to determine that these elements are not present in excess of specified limits.

2/ The sum of those "Others" metallic elements 0.010 percent or more each, expressed to the second decimal before determining the sum.

3.2 Mechanical Properties:

3.2.1 Mechanical Properties of Material as Supplied: The mechanical properties in the direction of extrusion shall conform to requirements specified in Table II. (See AMS-QQ-A-200 for exceptions to mechanical property requirements.)